

## CONTENTS OF VOLUME 37

### Numbers 1-2

- |            |    |   |
|------------|----|---|
| Editorials | 1  | A Short History of Marine Environmental Monitoring  |
|            | 3  | The NOAA National Status and Trends Program   |
| Reports    | 6  | U.S. Long-term Coastal Contaminant Temporal Trends Determined from Mollusk Monitoring Programs, 1965-1993<br><i>G. G. Lauenstein and K. D. Daskalakis</i>   |
|            | 14 | Mussel Watch Results from 1986 to 1996<br><i>T. P. O'Connor</i>   |
|            | 20 | NOAA's 'Mussel Watch' Project: Current use Organic Compounds in Bivalves<br><i>T. L. Wade, J. L. Sericano, P. R. Gardinali, G. Wolff and L. Chambers</i>  |
|            | 27 | Contribution of PAHs, PCBs, and PCDD/PCDFs to the Total Induction Equivalents ( $\Sigma$ IEs) in Mollusks<br><i>P. R. Gardinali and T. L. Wade</i>  |
|            | 32 | Agricultural Pesticide Residues in Oysters and Water from two Chesapeake Bay Tributaries<br><i>S. J. Lehotay, J. A. Harman-Fetcho and L. L. McConnell</i>   |
|            | 45 | Parasites of Sentinel Bivalves in the NOAA Status and Trends Program: Distribution and Relationship to Contaminant Body Burden<br><i>Y. Kim, E. N. Powell, T. L. Wade, B. J. Presley and J. Sericano</i>  |
|            | 56 | Elements in Fish and Sediment from the Pacific Coast of the United States: Results from the National Benthic Surveillance Project<br><i>J. P. Meador, P. A. Robisch, R. C. Clark Jr. and D. W. Ernest</i>   |
|            | 67 | Status, Correlations and Temporal Trends of Chemical Contaminants in Fish and Sediment from Selected Sites on the Pacific Coastal of the USA<br><i>D. W. Brown, B. B. McCain, B. H. Horness, C. A. Sloan, K. L. Tilbury, S. M. Pierce, D. G. Burrows, S.-L. Chan, J. T. Landahl and M. M. Krahn</i> |
|            | 86 | Hepatic CYP1A in Winter Flounder ( <i>Pleuronectes americanus</i> ) along the Northeast Coast: Results from the National benthic Surveillance Project<br><i>T. K. Collier, B. F. Anulacion and B. D. Bill</i>   |
|            | 92 | Toxicopathic Hepatic Lesions as Biomarkers of Chemical Contaminant Exposure and Effects in Marine Bottomfish Species from the Northeast and Pacific Coasts, USA<br><i>M. S. Myers, L. L. Johnson, O. P. Olson, C. M. Stehr, B. H. Horness, T. K. Collier and B. B. McCain</i>                       |

### Numbers 3-7

- |           |     |  |
|-----------|-----|--|
| Editorial | 115 | Integrated Riverine, Estuarine and Coastal Research in the UK Land-Ocean Interaction Study (LOIS)<br><i>A. R. D. Stebbing, D. Huntley and G. J. L. Leeks</i> |
|-----------|-----|--|

# Reports

- 122 Suspended Sediment Dynamics and Bed Erosion in the High Shore Mudflat Region of the Humber Estuary, UK  
*K. S. Black*
- 134 Measurement of Suspended Sediment Transport Processes in Shallow Water off the Holderness Coast, UK  
*J. Blewett and D. Huntley*
- 144 Cohesive Sediment Dynamics on an Inter-tidal Bank on the Tidal Trent, UK  
*J. S. Couperthwaite, S. B. Mitchell, J. R. West and D. M. Lawler*
- 155 Deriving Fluxes of Suspended Particulate Matter in the Humber Estuary, UK, Using Airborne Remote Sensing  
*M.-C. Robinson, K. P. Morris and K. R. Dyer*
- 164 Airborne Remote Sensing of Intertidal Biotopes: BIOTA I  
*A. G. Thomson, J. A. Eastwood, M. G. Yates, R. M. Fuller, R. A. Wadsworth and R. Cox*
- 173 Sediment Fluxes in Intertidal Biotopes: BIOTA II  
*S. L. Brown, E. A. Warman, S. McGrorty, M. Yates, R. J. Pakeman, L. A. Boorman, J. D. Goss-Custard and A. J. Gray*
- 182 Modelling of Water Flows and Cohesive Sediment Fluxes in the Humber Estuary, UK  
*Y. Wu, R. A. Falconer and R. J. Uncles*
- 190 Dynamics of the Turbidity Maxima in the Upper Humber Estuary System, UK  
*S. B. Mitchell, J. R. West, A. M. W. Arundale, I. Guymer and J. S. Couperthwaite*
- 206 Seasonality of the Turbidity Maximum in the Humber-Ouse Estuary, UK  
*R. J. Uncles, A. E. Easton, M. L. Griffiths, C. Harris, R. J. M. Howland, R. S. King, A. W. Morris and D. H. Plummer*
- 216 Dissolved Organic Carbon in a Large Macrotidal Estuary (the Humber, UK): Behaviour During Estuarine Mixing  
*X. A. Álvarez-Salgado and A. E. J. Miller*
- 225 Estuarine Nutrient Fluxes to the Humber Coastal Zone, UK, during June 1995  
*R. J. Uncles, R. G. Wood, J. A. Stephens and R. J. M. Howland*
- 234 Seasonal Variability of Dissolved Nutrients in the Humber-Ouse Estuary, UK  
*R. J. Uncles, R. J. M. Howland, A. E. Easton, M. L. Griffiths, C. Harris, R. S. King, A. W. Morris, D. H. Plummer and E. M. S. Woodward*
- 247 Denitrification and Nitrous Oxide Concentrations in the Humber Estuary, UK, and Adjacent Coastal Zones  
*J. Barnes and N. J. P. Owens*
- 261 Sediment-Water Exchange of Nutrients in the Intertidal Zone of the Humber Estuary, UK  
*R. J. G. Mortimer, M. D. Krom, P. G. Watson, P. E. Frickers, J. T. Davey and R. J. Clifton*
- 280 Impacts of Phytoplankton Activity on Dissolved Nitrogen Fluxes in the Tidal Reaches and Estuary of the Tweed, UK  
*P. J. Shaw, C. Chapron, D. A. Purdie and A. P. Rees*

- 295 Simulating the Spring Phytoplankton Bloom in the Humber Plume, UK  
*J. I. Allen, R. M. H. Howland, N. Bloomer and R. J. Uncles*
- 306 Dynamics of Particulate Trace Metals in the Tidal Reaches of the Ouse and Trent, UK  
*M. R. Williams and G. E. Millward*
- 316 Sediment-borne Contaminants in Rivers Discharging into the Humber Estuary, UK  
*J. G. Rees, J. Ridgway, R. W. O. B. Knox, G. Wiggans and N. Breward*
- 330 Fluxes of Organic Contaminants from the River Catchment into, through and out of the Humber Estuary, UK  
*J. L. Zhou, T. W. Fileman, W. A. House, J. L. A. Long, R. F. C. Mantoura, A. A. Meharg, D. Osborn and J. Wright*
- 343 Historical Contaminant Fluxes in the Tees Estuary, UK: Geochemical, Magnetic and Radionuclide Evidence  
*A. J. Plater, J. Ridgway, P. G. Appleby, A. Berry and M. R. Wright*
- 361 An Expert System for Integrated Coastal Zone Management: A Geomorphological Case Study  
*T. Moore, K. Morris, G. Blackwell, S. Gibson and A. Stebbing*

## Numbers 8-12

- |           |     |   |
|-----------|-----|---|
| Editorial | 371 | <i>A. Edwards</i> Rehabilitation of Coastal Ecosystems  |
| Reports   | 373 | The Socio-Economic Costs and Benefits of Coastal Habitat Rehabilitation and Creation<br><i>J. Spurgeon</i>  |
|           | 383 | Rehabilitation of Mangrove Ecosystems: An Overview<br><i>C. D. Field</i>  |
|           | 393 | The Mangrove Ecosystem of the Ciénaga Grande de Santa Marta (Colombia): Observations on Regeneration and Trace Metals in Sediment<br><i>L. Perdomo, I. Ensminger, L. F. Espinosa, C. Elster, M. Wallner-Kersanach and M.-L. Schnetter</i> |
|           | 404 | Adapting an Ecological Mangrove Model to Simulate Trajectories in Restoration Ecology<br><i>R. R. Twilley, V. H. Rivera-Monroy, R. Chen and L. Botero</i>   |
|           | 420 | Impacts of Sediment Burial on Mangroves<br><i>J. C. Ellison</i>   |
|           | 427 | Mangrove Forests: a Tough System to Invade but an Easy one to Rehabilitate<br><i>A. E. Lugo</i>   |
|           | 431 | Mangrove Conservation and Coastal Management in Southeast Asia: What Impact on Fishery Resources?<br><i>E. Baran and J. Hambrey</i>   |
|           | 441 | Causes and Consequences of Mangrove Deforestation in the Volta Estuary, Ghana: Some Recommendations for Ecosystem Rehabilitation<br><i>J. A. Rubin, C. Gordon and J. K. Amatekpor</i>   |



- 450 Contrasting Recolonization Strategies in Multi-Species Seagrass Meadows  
*R. N. Rollon, E. D. De Ruyter Van Steveninck, W. Van Vierssen and M. D. Fortes*
- 460 Pilot Experiments on Planting Seedlings and Small Seagrass Propagules in Western Australia  
*H. Kirkman*
- 468 The Rehabilitation of the Tampa Bay Estuary, Florida, USA, as an Example of Successful Integrated Coastal Management  
*R. R. Lewis III, P. A. Clark, W. K. Fehring, H. S. Greening, R. O. Johansson and R. T. Paul*
- 474 Coral Transplantation: A Useful Management Tool or Misguided Meddling?  
*A. J. Edwards and S. Clark*
- 488 Ecological Parameters of Dynamited Reefs in the Northern Red Sea and their Relevance to Reef Rehabilitation  
*B. Riegl and K. E. Luke*
- 499 Mass Diving Tourism – A New Dimension Calls for New Management Approaches  
*P. van Treeck and H. Schuhmacher*
- 505 Artificial Reefs as a Tool to Aid Rehabilitation of Coastal Ecosystems: Investigating the Potential  
*H. Pickering, D. Whitmarsh and A. Jensen*
- 515 Rehabilitation of Saline Wetlands, Olympics 2000 Site, Sydney (Australia) – I: Management Strategies Based on Ecological Needs Assessment  
*M. D. Burchett, A. Pulkownik, C. Grant and G. MacFarlane*
- 526 Rehabilitation of Saline Wetland, Olympics 2000 Site, Sydney (Australia) – II: Saltmarsh Transplantation Trials and Application  
*M. D. Burchett, C. Allen, A. Pulkownik and G. MacFarlane*
- 535 Creation of Temperate-Climate Intertidal Mudflats: Factors Affecting Colonization and Use by Benthic Invertebrates and their Bird Predators  
*P. R. Evans, R. M. Ward, M. Bone and M. Leakey*
- 546 A Review of the Concepts and Application of Rehabilitation Following Heavy Mineral Dune Mining  
*R. A. Lubke and A. M. Avis*

